North Dakota Department of Health

SMALLPOX

LIVE VIRUS VACCINES AND VACCINIA

The vaccinia virus is the "live virus" used in the smallpox vaccine. It is a "pox"-type virus related to smallpox. When given to humans as a vaccine, it helps the body to develop immunity to smallpox. Because the vaccine does not contain the smallpox virus, it cannot cause smallpox.

What is a "live virus" vaccine?

- A "live virus" vaccine is a vaccine that contains a "living" virus that is able to give and produce immunity, usually without causing illness.
- Because the virus in the smallpox vaccine is live, it can be transmitted to other parts of the body or to other people, and so the site must be cared for carefully.
- For most people with healthy immune systems, live virus vaccines are effective and safe.
- Sometimes a person getting a live vaccine experiences mild symptoms associated with the virus in the vaccine.
- Other live virus vaccines used include measles, mumps, rubella and chickenpox.

Facts about vaccinia

- The vaccinia virus, the virus in the smallpox vaccine, is another "pox"-type virus.
- Vaccinia is related to smallpox, but milder.
- The vaccinia virus may cause rash, fever, and head and body aches. In certain groups of people, complications from the vaccinia virus can be severe.
- Vaccinia is spread by touching a vaccination site before it has healed or by touching bandages or clothing that have been contaminated with live virus from the smallpox vaccination site.
- This way, vaccinia can spread to other parts of the body or to other individuals. This is called inadvertent inoculation.
- In the past, spreading to other parts of the vaccine recipient's body was the more common form of inadvertent inoculation.
- Careful care must be taken of the vaccine site to prevent spreading of the vaccinia virus.

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